

L 20427-66

ACC NR: AT:6006230

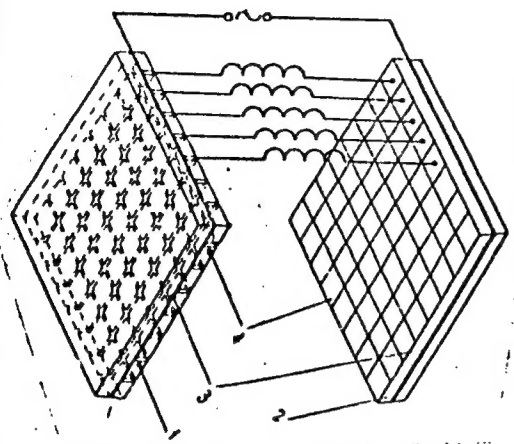


Fig. 1. Resonance circuit isothermal contour registering device: 1 - sensing screen; 2 - registering screen; 3 - outer conductive coating; 4 - inner conductive coating.

The sensing screen is divided into ferroelectric cells the dielectric constant of which is a function of the temperature. These ferroelectric temperature-dependent capacitances are connected through inductive lines with luminophor screen capacitances. The author develops

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a theory for the setup and works out illustrative calculations for some of the pertinent parameters. The use of the pyroelectric effect allows the determination of isothermal lines of transparent temperature fields, i.e., of fields without radiations in the visible part of the spectrum. Low temperature fields can also be measured. Orig. art. has: 34 formulas and 3 figures. [08]

SUB CODE: 14/ *09/* SUBM DATE: 05Nov65/ ORIG REF: 006 ATD PRESS: 4222

Card 3/3 *ULR*

STROKOV, V.I.; KUZNECOV, A.M.

Position circuits of the automatic temperature regulation in
spinning heads with electric heating. Khim. volok. no.5:
63-64 '65. (MIRA 18:10)

1. VNIIMSV.

STROKOV, V.I.

Use of the AUS system regulating block for pressure measurement
in a narrow range. Khim. volok. no.6:64-65 '65.

(MIRA 18:12)

1. VNIIMSV. Submitted September 16, 1964.

1. Introduction

1.1. The main purpose of the present paper is to describe the principles of operation of the remote-control and monitoring system for radio-relay lines.

AUTHORS: Rodionov, V.M.; Stokov, V.N. and Sheberova, R.N.
SOV/106-59-2-3/11
APPROVED FOR RELEASE: 08/26/2000
TITLE: Remote-control and monitoring system for radio-relay lines (Apparatura dstantsionnogo upravleniya i kontrolya dlya radioreleynykh liniy)

PERIODICAL: Elektrosvyaz', 1959, Nr 2, pp 15 - 23 (USSR)

ABSTRACT: Remotely-controlled and monitored systems for radio-relay lines usually consist of main, manned stations, each of which controls several unmanned, intermediate stations. This article describes one such system developed for the Ministry of Communications. It differs from existing systems in that it uses semi-conductor triodes and cold-cathode thyatrons instead of the usual electronic valves. This reduces the power consumption, increases reliability and simplifies construction. The system provides for the following possibilities:

- 1) Transmission of 59 "commands" to any of 10 remotely-controlled stations; receipt of a command by the called station is acknowledged by a special "receipt" signal.
- 2) Transmission from any of 10 remotely-serviced stations of a signal indicating a change in the condition of one or more of 64 tele-signalling transducers. The signal

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Remote-control and Monitoring Equipment for Radio-relay Lines

contains only information on the station number at which the change occurs; the nature of the change is not encoded.
3) Transmission from any of the remotely-controlled stations when requested, of information concerning the condition of each of the 64 tele-signalling transducers, previously mentioned.

Telecontrol Apparatus:

Transmitter - Each command is transmitted in the form of a coded group of three successive ringing tones. Each ringing tone can have one of four frequencies, thereby giving 64 possible code combinations. The code-forming apparatus consists of three semi-conductor oscillators and three thyratrons. The code combination is selected by depression of a knob on the command panel. The circuit is described and the diagram given in Figure 2.

Receiver - The received command is decoded at the remotely-controlled station by a "pyramid" connection of three tiers of thyratrons interconnected in such a manner that ignition of a thyatron in lower tier prepares for firing four thyratrons in the following tier (Figure 2). The first

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(lowest) tier contains four thyratrons; the second, four sets of four and the third, 16 sets of four. The thyratrons are ignited by pulses formed from the ringing tones of the coded command by "signal" thyratrons connected via filters to the output of a two-stage semiconductor signal amplifier. To all the thyratrons of the same number in the sets of four is applied the pulse from the corresponding element of the code combination. The result is that, after a command has been received, a relay in the anode circuit of a particular final-tier thyatron is operated. A three-tier pyramid provides 59 final thyratrons for control and 5 for calling. A circuit for restoring the decoder pyramid to its waiting condition (Figure 3) is then described.

Tele-signalling apparatus - The tele-signalling apparatus consists of the tele-signalling equipment proper, common emergency equipment and the receipt signalling equipment. Each of the above has a receiving and transmitting section. The transmitting section consists of thyatron circuits connected in such a manner that ignition of each circuit, after a time delay of about 30 milliseconds, triggers the following thyatron. The simplified diagram is given in

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Figure 4. The first thyatron is triggered when the station is called. Tele-signalling transducers are connected in the cathodes of the thyratrons and, depending on the condition of the transducer, the thyatron anode pulse operates one or the other of two, different-frequency semiconductor oscillators. The result is that the order of the frequencies in the transmitted pulse train depends on the conditions of the transducers.

The receiver section contains two circuits of transistor amplifiers with filters and signal thyratrons. The circuit forms pulses from the received ringing tones when "Call Tele-signalling" button is pressed. The basic "repeat" of the receiver circuit is a double-circuit, each arm of which contains a pair of thyratrons (Figure 5). From the common cathode resistance of each pair is taken the bias for preparing the following pair. Triggering pulses for the lower thyratrons of each pair come from the signal thyatron of one frequency and for the upper, from the signal thyatron of the other frequency. Thus, the thyratrons ignited in the different pairs depend on the character of the received

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combination. The number of "repeats" of the basic circuit equals the number of signal impulses applied to the receiver.

Finally, the emergency and receipt signal circuits are described. The techniques used are similar to those used in the other parts of the equipment. The circuit of the common emergency signalling transmitter is given in Figure 6; for the emergency receiver, in Figure 7; for the receipt signalling apparatus, in Figure 8. There are 8 figures and 2 Soviet references.

SUBMITTED: May 29, 1958

Card 5/5

STROKOV, Vladimir Petrovich; ZAGORSKIY, G., red.; USTINOVA, S.,
tekhn. red.

[Long life to technology] Tekhnika - dolguiu zhizn'. Moskva,
Mosk. rabochii, 1962. 28 p. (MIRA 15:10)

1. Glavnyy inzhener sovkhoza "Malino" Stupinskogo rayona (for
Strokov).

(Tractors--Maintenance and repair)

STROKOV, V.V., kand. biolog. nauk

Use of tar water for scaring off susliks from acorns in steppe
oak plantations. Okhr. prir. i ozel. no.3:113-115 '60.

(MIRA 16:12)

9. Monthly List of Russian Accessions, Library of Congress, November 1958, Uncl.

2

STROKOV, V.V.

Insects are the primary enemies of oak in Sochi and vicinity.

Ent.oboz. 32:69-75 '52.

(MLRA 7:1)

(Sochi--Oak--Diseases and pests) (Diseases and pests--Oak--
Sochi)

STACHOV, V.V. --

"The Biological Basis for the Adaptation of the Oak (*Quercus Ster L*)
and the Rapid Exploitation of Its Roots." Cand Biol Sci, Leningrad
Forestry Engineering Acad Imeni S.M. Kitova, Leningrad 1953. (RZhBiol, No 2,
Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

U. S. V. V.

Hemp

Use of hemp for protection against larvae of the June bug. Let i step' 5 No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

VLASOV, Aleksey Alekseyevich; VORONTSOV, Aleksey Ivanovich; PONOMAREVA, Yekaterina Nikolayevna; STROKOV, Vyacheslav Vsevolodovich; FLEROV, Sergey Konstantinovich; KHRAMTSOV, N.N., redaktor; IL'INSKIY, A.I., kandidat sel'skokhozyaystvennykh nauk; MALKOV, A.A.; KOLESNIKOVA, A.P., tekhnicheskiiy redaktor

[Forest protection] Lesozashchita. Izd. 2-oe, perer. Pod obshchei red. S.K. Flerova. Moskva, Goslesbumizdat, 1955. 438 p.

(MLRA 9:1)

1. Prepodavatel' Khrenovskogo lesnogo tekhnikuma (for Malkov)
(Forests and forestry) (Trees--Diseases and pests)

USSR / General and Special Zoology. Insects. Harmful P
Insects and Arachnids. Pests of Decorative and
Flower Plants.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64128.

Abstract: Lilac varieties slightly damaged by the moth
are noted. It is recommended to redig the soil
under the bushes so that the pupae be found at
a depth of 20 cm and also to apply a three -
fourfold dusting of the lilac bushes by DDT and
DHC dusts. -- L. A. Zinov'yeva.

#1615

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72
END

STROKOV, V.V., kandidat biologicheskikh nauk (Moskva); SHPET, G.I., kandidat biologicheskikh nauk; BRODSKIY, S.Ya., kandidat biologicheskikh nauk; LUBININ, V.B., professor.

Instances of cannibalism in animals. Priroda 45 no.7:97-99 J1 '56.
(MLRA 9:9)

1.Nauchno-issledovatel'skiy institut prudevogo i ozerne-rechnogo
rybnogo khozyaystva, Kiyev (for Shpet, Brodskiy).2.Zoologicheskii
institut Akademii nauk SSSR, Leningrad (for Dubinin).
(Cannibalism (Animals))

STROKOV, V., kandidat biologicheskikh nauk.

The watchful gulls. IUn.nat. no.6:7-8 Je '57.
(Gulls)

(MIRA 10:7)

Троцкий, В. П., кандидат биологических наук, (Москва)

~~Средобитие~~ Distribution of the Caucasian shrew in winter. Izvestiya 26 no. 2: 113-114
1950. (CASA 10:8)

(Caucasus--shrews)

87 1 22 11 1
RZHEVSKIY, Boris Moiseyevich; STROKOV, V.V., kand.biol.nauk, red.

[Beavers; conservation, keeping, feeding, and transportation]
Rechnye hobry; sokhranenie, sodержanie, kormlenie i transportirova-
nie. Pod red. V.V.Strokov. Moskva, Mosk.obl.otd-nie Vserossiiskogo
ob-va sodeistviia okhrane prirody i ozeleneniiu naselennykh punktov,
1958. 74 p. (MIRA 11:5)
(Beavers)

STROKOV, V., kand.biol.nauk

Living laboratories. IUn.nat. no.1:13 Ja '58. (MIRA 10:12)
(Ural Mountain region--National parks and reserves)

STROKOV, V.

Feed boxes for birds. IUn.tekh. 3 no.12:54-55 D '58.
(MIRA 12:1)

1. Uchenyy sekretar' Vserossiyskogo obshchestva sodeystviya
okhrane prirody i ozeleneniyu naselennykh punktov.
(Birds--Food)

STROKOV, V.V., kand. biol. nauk

Nature must be protected. ("The green patrol" by Iu. Dmitriev.
Reviewed by V.V. Stokov). Znan. sila 33 no.4:42 Ap '58.
(Natural resources) (Dmitriev, Iu.) (MIRA 11:5)

STROKOV, V.

Bullfinch. IUn. nat. no.12:12 D '59
(Finches)

(MIRA 13:3)

STROKOV, V.

Winners of the contest. IUn.nat. no.6:33 Je '60. (MIRA 13'8)
(Birds, Protection of)

STROKOV, V., kand.biologicheskikh nauk

Why are sparrows so sly? IUn. nat. no.9:28 S '61. (MIRA 14:8)
(Sparrows)

STROKOV, V.V.

Ecology of the linnet in the southwest of Moscow. Ornitologiya
no.5:290-299 '62. (MIRA 16:2)
(Moscow—Linnet)

STROKOV, V.V.

Let's take care of useful plants and animals. Biol. v shkole no.3:
63-64 My-Je '63. (MIRA 16:10)

1. Tambovskiy pedagogicheskiy institut.

... in artificial nesting grounds. Unit 10 file no. 6410
...

STROKOV, Vyacheslav Vsevolodovich, kand. biol. nauk

[Animal: and birds in our forests] Zveri i ptitsy na-
shikh lesov. 2. izd. Moskva, Lesnaia promyshlennost',
1964. 43 p. (Bibliotekha lesnika i mastera lesa, no.9)
(MIRA 17:12)

STROKOV, V.V.

Congenital and conditioned reflexes in birds and their influence on the choice of materials for building nests. Zool. zhur. 43 no.6:889-897 '64. (MIRA 17:12)

1. Tombovskiy gosudarstvennyy pedagogicheskiy institut.

S/707/60/003/000/012/013
B108/B102

246700
AUTHOR: Strokov, Yu. F.

TITLE: Interpretation of high-energy particle stars ($E \geq 10^{11}$ ev)
by a modified "ray" theory

SOURCE: Akademiya nauk Kazakhskoy SSR. Institut yadernoy fiziki.
Trudy. v. 3, 1960. Vzaimodeystviye vysokoenergichnykh
chastits s atmonyami yadrami, 150-156

TEXT: The portion of low-energy particles in a high-energy shower is
explained by the phenomenological "ray" theory in which it is assumed
that in the collision of a nucleon and a nucleus a pencil of mesons arises.
This pencil, or "ray", diffuses in the nucleus. This theory is modified
by assuming a diffusion coefficient of the form $D = \frac{\pi}{8} \alpha \rho E^{-1/2} \bar{\tau}^2$ (s)
where E is the energy of the primary particles (Bev), ρ - nucleon density
in the nucleus, $\alpha \sim 2$. This formula means that only part of the mesons
diffuse. Their energy in the c.m.s. is $E' = E - M\gamma + \beta E^{1/2}$ where β is a
coefficient of the order of unity. The slow particles are assumed to be

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Interpretation of high-energy ...

S/707/60/003/000/012/013
B108/B102

recoil nucleons and particles produced in nuclear excitation. The angular distribution of the slow particles can be rendered as $dn_b/d\vartheta = a \sin^2 \vartheta r_0/r$, where r_0/r denotes the probability of particles leaving the nucleus, r - distance from the place of production, $r_0 = h/\mu c$. Under such assumptions it is possible to draw qualitative conclusions also on the multiplicity of the shower particles in high-energy showers. Professor Zh. S. Takibayev is thanked for help, L. A. San'ko, Ts. I. Shakhova, and Ts. Ya. Balats of supplying experimental data. There are 5 figures and 7 references: 3 Soviet and 4 non-Soviet. The two references to English-language publications read as follows: W. Heitler and Terreux. Proc. Phys. Soc., A 66, 929, 1953; K. J. Le Couteur. Proc. Phys. Soc., A 63, 259, 1950. ✓

Card 2/2

ACCESSION NR: AP4031160

S/0056/64/046/004/1379/1385

AUTHOR: Nemirovskiy, P. E.; Stokov, Yu. F.

TITLE: Optical model for antinucleon-nucleon collisions

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1379-1385

TOPIC TAGS: antinucleon, nucleon, optical model, potential spin, isospin, charge exchange

ABSTRACT: This is an elaboration of an earlier treatment (Yu. P. Yelagin and P. E. Nemirovskiy, ZhETF v. 44, 1099, 1963), in which account is taken of the influences of the tensor force, the spin orbit interaction, and the isotopic dependence of the potential on the total cross sections for the interaction between nonrelativistic antinucleons and nucleons. This interaction is effectively described by a complex potential which depends on the spin and on the isotopic spin, and also contains the tensor force. The angular distribution of the elastically scattered nucleons and the cross section for charge exchange in the $\bar{p}p \rightarrow \bar{n}n$ reaction is also calculated. The results for the total cross sections, angular distributions of elastic scattering, and the charge-exchange cross sections are in satisfactory agreement with experiment. "In conclusion, the authors are grateful to Yu. P. Yelagin for help with

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ACCESSION NR: AP4031160

the work." Orig. art. has: 10 figures and 14 formulas.

ASSOCIATION: None

SUBMITTED: 07Oct63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: NP

NR REF SOV: 001

OTHER: 004

Card 2/2

3.10.69, Yu. I.

Proton-antiproton interaction at nonrelativistic energies with allowance made for Coulomb forces and the neutron-proton mass difference. Izv. fiz. i no. 710-714 4p '65. (MIRA 18:4)

1. Institut teple- i massobremi AN BSSR.

KOLYKHALOV, P.A.; SHCHEGOLEVA, R.I.; VASIL'YEVA, I.N.; GUDKOVA, T.K.;
MAKOVSKAYA, N.G.; TOLSTYKH, A.S.; KRAMCHENKOVA, L.V.; NEDZVETSKAYA,
G.V.; STROKOVA, A.Ya.; GERMANOVICH, N.N., red.; KARZHAVINA, Ye.,
tekhn.red.

[Economy of Lipetsk Province; a statistical manual] Narodnoe
khoziaistvo Lipetskoi oblasti; statisticheskii sbornik. Lipetsk,
Lipetskoe knizhnoe izd-vo, 1959. 182 p. (MIRA 13:6)

1. Lipetskaya oblast'. Statisticheskoye upravleniye. 2. Statisti-
cheskoye upravleniye Lipetskoy oblasti (for Kolykhalov, Shchegoleva,
Vasil'yeva, Gudkova, Makovskaya, Tolstykh, Kramchenkova, Nedzvetakaya,
Stroкова). 3. Nachal'nik Statisticheskogo upravleniya Lipetskoy ob-
lasti (for Germanovich).
(Lipetsk Province--Statistics)

1. The first part of the report is devoted to the description of the

hemorrhagic action of phagocytosis in platelets as a result of injury. Pokl. AN USSR 20.10.4: 66.467. 1965.

(MIA 18:3)

2. The second part of the report is devoted to the description of the
"..."

STROKOVA, G.S.

Evidence of uraninite in complex alkali rocks. Inform.sbor.

VSEGEI no.16:103-107 '59.

(MIRA 15:3)

(Uraninite)

BUR'YAN, Z.; SYROKOVA, G.S.; SHITOV, V.A.

"Mamurellit," a new mineral. Zap. Vses. min. ob-va 94
no 2, 437-443 '65. (MIRA 18:9)

STROKOVA, I.; VASIL'YEVA, T.; KAREV, M.; CHECHETKINA, S.

Improve the leadership of production meetings. Sov.profsoiuzy
7 no.15:33-36 Ag '59. (MIRA 12:12)
(Works councils)

STROKOVA, N.Z.

KICHIGINA, M.I.; STROKOVA, N.Z., glavnyy vrach; POKROVSKIY, V.A., professor,
zaveduyushchiy kafedroy.

Cancer of prolapsed cervix uteri. Akush. i gin. no.3:79-80 My-Je '53.
(MLRA 6:7)

1. Rodil'nyy dom No.4 (for Kichigina and Strokova). 2. Akushersko-gineko-
logicheskaya klinika Voronezhskogo meditsinskogo inatituta (for Kichigina
and Pokrovskiy). (Uterus--Cancer)

ROZIDESTVENSKIY V.P.; STROKOVA, T.P.; VOLGINA, I.M.

Interaction between mixtures of a liquefied gas with water
vapor and iron oxide. Zhur. prikl. khim. 36 no.9:1987-1993
D '63. (MIRA 17:1)

1. Saratovskiy nauchno-issledovatel'skiy institut po ispol'-
zovaniyu gaza v narodnom khozyaystve.

MAVRISHCHEV, V.S., kand. ekon. nauk; VISYULIN, F.P., kand. ekon. nauk; STROKOVA, V.I., kand. ekon. nauk; VYBORNOV, V.I., kand. ekon. nauk; LOPATIN, N.V., kand. ekon. nauk; SOSIN, L.M., kand. ekon. nauk; ZYATIKOV, Ya.M., kand. ekon. nauk; LYSOV, N.Ye., kand. ekon. nauk; NEVEL'SKAYA, K.I., kand. ekon. nauk; TRUBILKO, N.P., kand. ekon. nauk; OS'KIN, V.Ya., kand. ekon. nauk

[Chemicalization of industrial production in White Russia]
Khimizatsiya promyshlennogo proizvodstva Belorussii. Minsk,
Nauka i tekhnika, 1965. 126 p. (MIRA 18:5)

FERDINAND, Ya.M.; MEDYUKHA, G.A.; KUCHERENKO, R.A.; DUNCHENKO, Ye.P.
STROKOVA, Ye.I.; SHCHEGLOVA, L.A.; PYASETSKAYA, Ye.A.;
DEMENT'YEVA, A.I.; ZOLINA, L.T.

Epidemiological effectiveness of the systematic use of the typhoid
bacteriophage for chronic bacterial carriers. Sov. med. 24
no. 5:128-130 My '60. (MIRA 13:10)

1. Iz Rostovskogo-na-Donu instituta epidemiologii, mikrobiologii
i gigiyeny.

(TYPHOID FEVER) (BACTERIOPHAGE)

S/137/61/000/012/109/149
A006/A101

AUTHOR: Strokovskiy, L. I.

TITLE: Control of pipeline weld joints

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1961, 66, abstract
12E410 (V sb. "Izgotovleniye i montazh truboprovodov", Moscow, 1960,
157-167)

TEXT: Information is given on operational control during the assembly of pipelines. The author enumerates the objects and extent of control, characteristics of gamma sources and containers; the system of container charge; gamma-raying methods; development of gammagraphs, evaluation of weld joints. The importance of xerography for control purposes is analyzed (production of electrographic images at gamma and X-ray emission on a semi-conducting Se or Zn oxide layer, applied onto a metal plate). Brief characteristics of the new equipment are given for various control methods.

Ye. Terpugov

[Abstracter's note: Complete translation]

Card 1/1

STROKOWSKI, M.

Servo systems with potentiometers or selsyn transformers. p.485
(POMIARY, AUTOMATYKA, KONTROLA, Vol. 2, No. 12, Dec. 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (EFAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

COUNTRY	: Poland	A-3
CATEGORY	:	
ABST. JOUR.	: RZKham., No. 16 1959, No.	57384
AUTHOR	: <u>Strokowski, M.</u> and <u>Stefanicki, R.</u>	
INSE.	: Not given	
TITLE	: Flow Control Systems Using a Transmitting Rotameter	
ORIG. PUB.	: Pomiar, Automat, Kontrola, 4, No 2, 47-49 (1955)	
ABSTRACT	: The authors describe the design and operation of an automatic electronic flow control system developed at the Silesian Polytechnic Institute of the Polish Peoples Republic. The motions of the Rotameter float are transmitted to the control system by the inductance method using a special transformer and transducer which can be used with ordinary rotameters without requiring modifications to their housing.	
	Yu. Skoretskiy	

CARD: 1/1

STROLA, J.

STROLA, J. Active clays; on the opening of the factory in Kutina, first in Yugoslavia.

Vol. 6, No. 3 March 1955

MASINSKO-TEHNICKI GLASNIK

SO: Monthly list of East European Accessions, (EEAL) LC, Vol. 5 no. 3
March, 1956

STROLA, J.

Natural catalysts for cracking petroleum products; extended research on selected samples of clay. P. 10 NAFTA, Zagreb Vol. 7, No. 1, Jan. 1956

SOURCE: SEAL LC July 1956

STROM, A.D.

Biological purification of industrial waste waters containing low
molecular weight C - C fatty acids. Khim.i tekhn.topl.i masel 5
no.12:24-27 D '69. (MIRA 13:12)

1. Berdyanskiy opytyny neftemaslozavod.
(Sewage—Purification) (Acids, Fatty)

STROM, A.D., inzh.

Biological post-purification of industrial waste waters. Masl.-
zhir.prom. 26 no.12;38-40 D '60. (MIRA 13:12)

1. Berdyanskiy opytnyy neftemaslozavod.
(Berdyansk--Sewage--Purification)

22

Vapor-phase treatment of cracked gasolines in the Vickers cracking unit. B. P. FRAUKIN AND D. A. SIROM. *Nefteyanoe Kheymiziro* 18, 445 8(1930). Gasoline obtained in the Vickers cracking unit is evapd. again and passed in the vapor phase through fuller's earth filters. The yield of the final gasoline amounts to 91.1%, while 0.25% of fuller's earth is consumed, based on 11 regenerations. During this process the fuller's earth is continuously heated by flue gas, the temp. being kept at 230-5°. The untreated gasoline has a Stammer color of 1.2, gum 0.5%, no corrosive action, unsatisfactory doctor test, and a sp. gr. of 0.741. The treated gasoline has a color of 2.1, 0.1% of gum, satisfactory corrosion and doctor tests, and a sp. gr. of 0.737. A. A. BLOKHINSON.

ASD SLS METALLURGICAL LITERATURE CLASSIFICATION

12

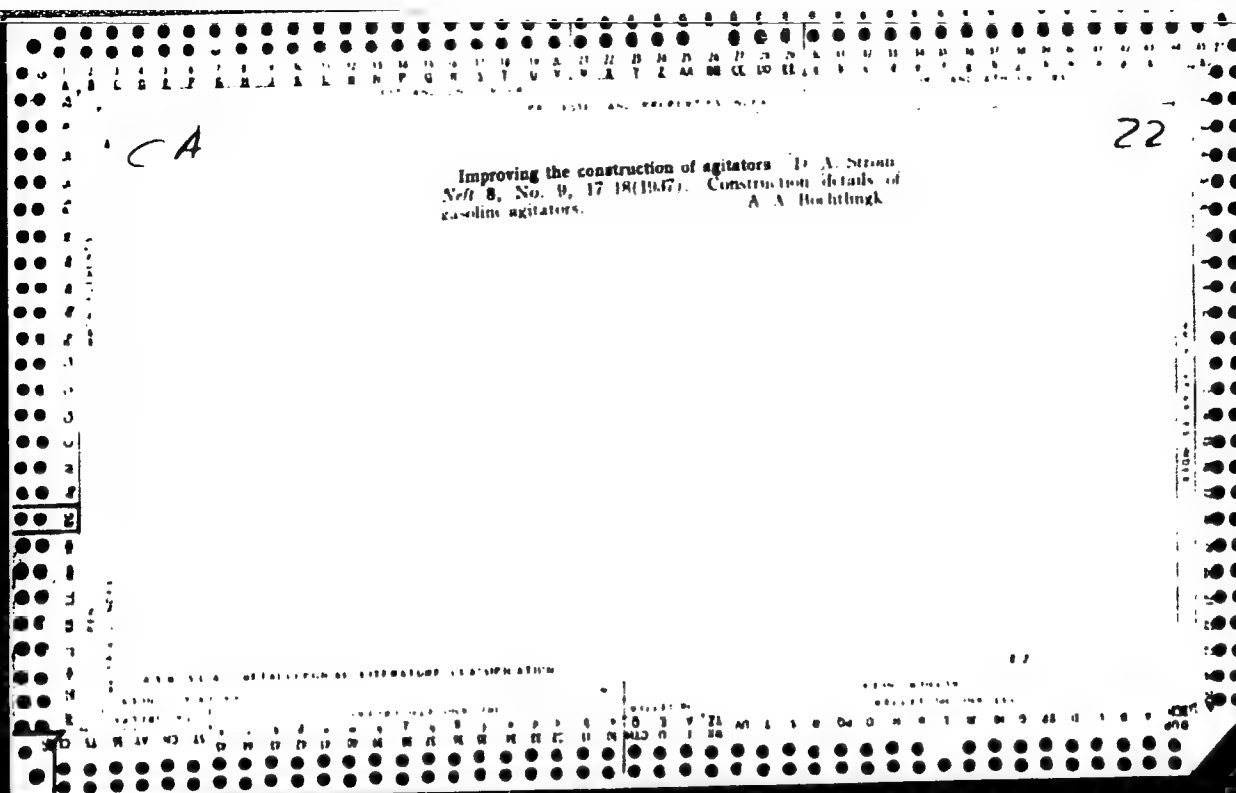
68

Processes and Properties Index

Atomizer for cracked residua. D. A. Strom, F. I. Bulaventzev and Z. E. Matveev. Russ. 31,534, Oct. 31, 1933. The atomizer which is attached to the outlet of the pipe leading from the reaction chamber and terminates in the evaporator is constructed of a flange fastened to the pipe and a second flange held by bolts attached to the first flange at a certain distance from the latter. The second flange has the form of a solid disk.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

12



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LA

Treating cracked gasoline V. T. Brazhnikov and D. A. Stroganov, Russ. 34,628, March 31, 1939. Vapors of pre-sulfate distillate are passed from the top of the fractionating tower into a cylindrical app. where they are first treated with an aq. soln. of $ZnCl_2$ and then with bleaching clays.

ASAC 55.4 METALLURGICAL LITERATURE CLASSIFICATION

CA

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Removal of hydrogen sulfide from gasoline distillates by means of dolomite. D. A. Siron and N. M. Shestakova. *Nefteyanoe Khas.* 24, No. 3/4, 68-70(1948). — The dolomite lumps were calcined in a gas flame at 800-900° and blown with air to obtain a chalklike mass which was crushed to 2-4-mm. particle size and then screened for removal of fines. The granules were then packed into the reaction tube, and the latter was immersed in water to effect hydration. The hydrated material retained some of its activity after 3 regenerations, but its internal structure deteriorated owing to the swelling action of the condensing steam during regeneration. It is suggested that dolomite filters be installed in stills to remove H₂S from the gasoline vapors before it oxidizes to elementary S. B. C. M.

ASB.31A METALLURGICAL LITERATURE CLASSIFICATION

CHAM, I. A.

1A 199T 5

USSR/Petroleum - Analysis
Hydrogen Sulfide

Jan 50

"Determination of Hydrogen Sulfide in Petroleum
and Petroleum Products," D. A. Strom, L'vov Poly-
tech Inst, 1 p

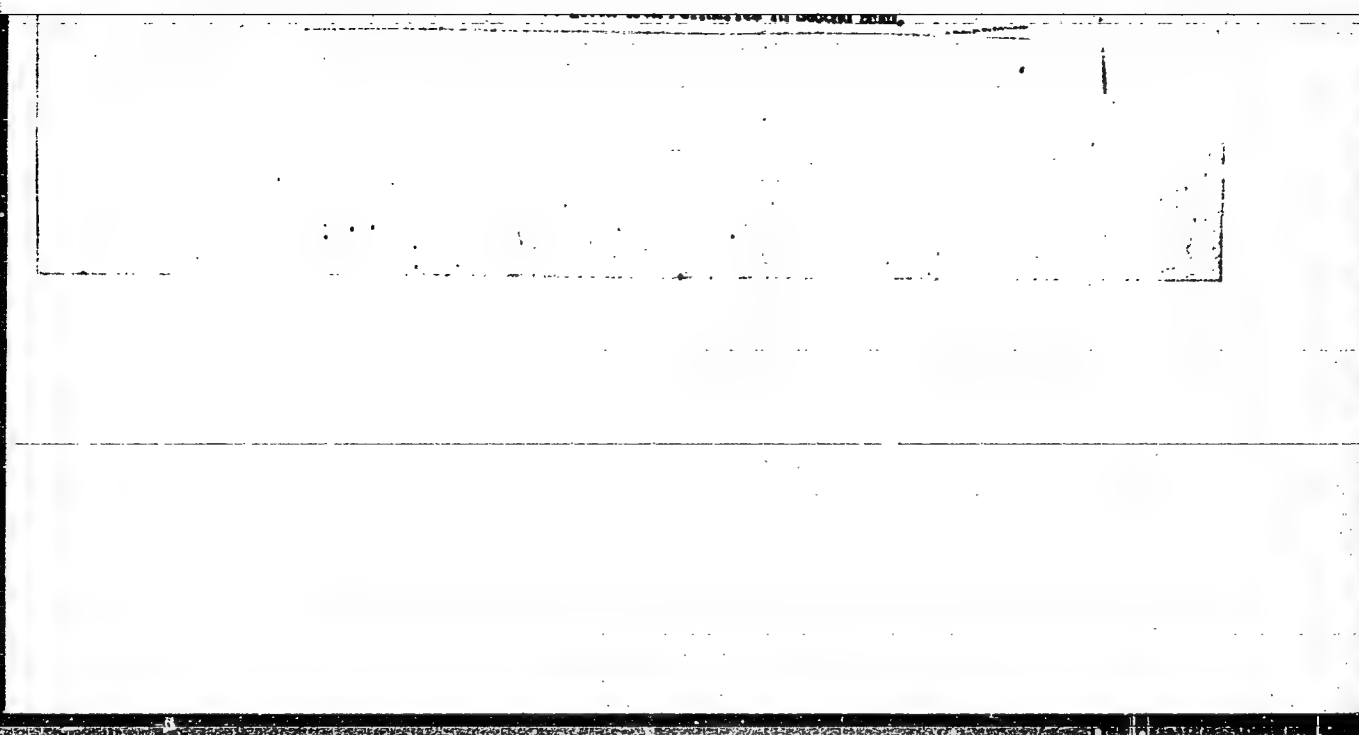
"Zavod Lab" Vol XVI, No 1

New method for determination of hydrogen sulfide
consists of its absorption by sodium carbonate
solution and iodometric titration of resultant
sodium hydrosulfide. Application of soda per-
mits separation of hydrogen sulfide without ex-
tracting mercaptans, which otherwise would cause
higher figures for hydrogen sulfide content.

159T75

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653610002-7



APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653610002-7"

STROM, D.

Young specialists are going eastward. Neftianik 1 no.10:34-35 0
'5 . (MLRA 9:11)
(Petroleum engineering)

SOV/81-59-7-24839

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 7, p 467 (USSR)

AUTHORS: Strom, D.A., Polisachuk, S.A.

TITLE: Deasphaltation of Ozocerite in Emulsion

PERIODICAL: Nauchn. zap. L'vovsk. politekhn. in-ta, 1958, Nr 50, pp 139-142

ABSTRACT:

A method was developed for the partial deresination (prior to sulfuric acid treatment) of ozocerite (O) to be purified by deasphaltation in emulsion (E). To obtain aqueous ozocerite E, a 2% aqueous solution of naphthenic soaps (alkali waste products of medium and heavy petroleum fractions) was taken, which supplement the action of solid emulsifiers contained in O and facilitate the process of formation of E and its separation. E was separated by settling or centrifuging; ceresin and oils contained in the precipitate can be regenerated by heating the latter with water. It was shown that deasphaltation in emulsion imparts to the various O an approximately equal residual resinousness, which simplifies the operation of the installation in case of processing heterogeneous

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Deasphaltation of Ozocerite in Emulsion

SOV/81-59-7-24839

raw material. The method permits the H_2SO_4 consumption to be reduced by ~ 50% with a decrease of the duration of the technological cycle. The sulfuric acid purification of concentrated O can be carried out at ~ 100°C with subsequent neutralization and contact purification, without decreasing the ceresin yield in comparison with the industrial method.

From the summary

Card 2/2

STROM, D.A.; inzh. KOFTUN, T.I., inzh.

Improving the production process of synthetic fats. Naftianik 5
no.6:12-13 Je '60. (MIRA 13:7)

1. Berdyanskiy neftemaslozavod.
(Oils and fats)

3/092/60/000/006/001/091
A051/A026

AUTHORS: Strom, D.A., Koftun, T.I.; Engineers
TITLE: Perfecting the Production of Synthetic Fat
PERIODICAL: Neftyanik, 1960, No. 6, pp. 14 - 15

TEXT: The authors refer to the production method for synthetic fat, using zinc oxide as catalyst, which was described in Neftyanik No. 6, 1959, and submitted by D.A. Strom. He stressed the lengthy duration of the process (8 - 15 h) to be the disadvantage of the method. The experimental department of the Berdyansk Refinery conducted tests in order to shorten the cycle, involving the replacement of the zinc oxide with a more effective catalyst. It was established as a result that by using sulfuric acid, phosphorous anhydride or zinc chloride, the duration of the process could be shortened considerably, and a higher degree in converting fatty acids to synthetic fat could be accomplished. The production process of synthetic fat in industrial reactor-mixers, using sulfuric acid as catalyst, is described as being carried out under strict maintenance of temperature, measuring out the components and observing the sequence of their introduction. Synthetic fatty acids were taken as initial raw material. They are fed from the tank to the

Card 1/6

S/092/60/000/006/001/001
A051/A026

Perfecting the Production of Synthetic Fat

reactor by a pump (1) (see Figure) with the mixer (3) switched on, and are dehydrated there till the residual water content is not more than 0.5% by weight. The heat-carrier is fed to the tank (2) of the reactor-mixer and the temperature of the material is raised to 130 - 135°C. The catalyst in the form of a fine stream is fed to the dry material - a 90% sulfuric acid from the measuring container (5). The supply of the acid is accomplished in two stages to avoid violent boiling of the fatty acids in the reactor-mixer. After introducing the first batch of the sulfuric acid comprising 2/3 of the required estimated quantity, ethylene glycol, in the form of a small continuous stream, is fed to the reactor from the measuring container (4) in the amount of 6.5%. If heavy foam is forming, the supply of the ethylene glycol is stopped and, if this does not help, the mixing in the reactor is stopped till the foam is reduced; then the supply of the ethylene glycol is resumed and the mixing starts again. After the whole amount of the ethylene glycol has been introduced, the remainder of the sulfuric acid is added (1/3 of the estimated amount) and the temperature is raised to 150 - 160°C during this process. The laboratory check of the process is carried out according to the acid number of the reacting mass. The acid number drops as the reaction (of the esterification) becomes more complete and when 25 mg of KOH/g is reached, the fat is considered ready for pouring. Comparative characteristics of initial raw material and syn-

Card 2/6

Perfecting the Production of Synthetic Fat

S/092/60/000/005/001/001
A051/A026

thetic fat obtained under the old technological procedure in industry, using zinc oxide as catalyst and under that of the new one using sulfuric acid as catalyst, are shown in Table 1. The quality of the synthetic fat obtained by the sulfuric acid-catalyst method satisfies the main indices of technical standards. The iodine number is brought to zero, the acid number is not higher than 25 mg KOH/g and the saponification number not less than 160 mg KOH/g. A check of the change in quality of the synthetic fat during storage showed that, when sulfuric acid was used as catalyst, the product was more stable, which was not the case for the zinc oxide-catalyst product (Table 2). The author states that by using the new catalyst, the Berdyansk Oil Refinery was able to exceed its 1959 production plan for synthetic fat, to reduce the overhead cost and improve the quality. Besides, the need for zinc oxide, an expensive material, was eliminated at the refinery. The latter is needed for the production of zinc whites. There are 1 figure and 2 tables. ✓

ASSOCIATION: Berdyanskiy Neftemaslozavod (Berdyansk Petroleum - Oil Refinery)

Card 3/6

STROM, D.A., inzh.; CHOLOKOV, L.D.

People with daring ideas. Neftianik 6 no.5:18 My '61.

(MIRA 14:5)

1. Inzhener po ratsionalizatsii i izobretatel'stvu Berdyanskogo opytnogo
neftemaslozavoda.

(Lubrication and lubricants)

STROM, D.A., kand.tekhn.nauk; ISHCHUK, Yu.L., inzh.; STROM, L.D., inzh.

Production of synthetic fat. Masl.-zhir. prom. 27 nc.11:34-37
N '61. (MIRA 15:1)

1. Berdyanskiy neftemaslozavod (for D.A. Strom, Ishchuk).
2. Moskovskiy neftepererabatyvayushchiy zavod (for L.D. Strom).
(Oils and fats)

STEPANYANTS, S.A.; MORDASHOV, V.I.; ISHCHUK, Yu.L.; STROM. D.A.;
YENA, B.P.; NOVAKOV, G.Kh.

Continuous process of paraffin oxidation in the liquid-foam
state aimed at the production of synthetic fatty acids. Trudy
BONMZ no.1:20-25 '63. (MIRA 16:6)

(Paraffins) (Oxidation) (Acids, Fatty)

STEPANYANTS, S. A., inzh.; MORDASHOV, V.N., inzh.; ISHCHUK, Yu.L.,
inzh.; STROM, D.A., inzh.; YENA, B.P., inzh.; NOVAKOV, G.Kh.,
inzh.

Continuous process for paraffin oxidation in a liquid foamed
state. Masl.-zhir. prom. 29 no.3:21-23 Mr '63.
(MIRA 16:4)

1. Berdyanskiy opytnyy neftemaslozavod.
(Paraffins) (Oxidation)

STROM, D.A.; ISHCHUK, Yu.L.; STROM, L.D.; KOFTUN, T.I.

Improving the technology of the manufacture of synthetic
leather fat. Trudy BONMZ no.1:38-50 '63. (MIRA 16:6)

(Oils and fats)

STROM, D.A.

Producing acetylene from natural gas. Khiz. 1 tekhn. topl. 1 masel
9 no.12:65-66 D '64. (MIRA 18:2)

1. "V. M. [Zeluznyi, A.M.]; PROM, 1971.

Thermal decomposition of diluted acetylene. Doc. 1. 191 5 no. 1/1.
1977 '63. (MIRA 1976)

SOV/92-58-10-17/30

11(0)

AUTHOR: Strom, L.D., Engineer

TITLE: Drop Point or Melting Point (Temperatura kaplepadeniya
ili plavleniya)

PERIODICAL: Neftyanik, 1958, Nr 10, pp 23-24 (USSR)

ABSTRACT: Since synthetic fat can be used instead of the animal fat currently employed in large quantities in manufacturing grease, some tube oil plants have decided to build industrial units which could produce synthetic fat. Synthetic fat is a complex ether resulting from the synthesis of ethylene glycol and synthetic aliphatic acid. Synthetic fat produced by the Osipenkovskiy plant has characteristics corresponding to GOST provisions indicated by the author. To determine the melting point of a petroleum product with a crystalline network an apparatus developed by Zhukov is used as provided by GOST 4255-48. Fig. 1 shows curves indicating the melting point of paraffin,

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Drop Point or Melting Point

SOV/92-58-10-17/30

determined by using the Zhukov apparatus. Fig. 2 shows curves indicating the melting point of synthetic fat. The latter fail to give indications characterizing the crystalline substance. Therefore Zhukov's method cannot be applied to determine the melting point of an amorphous substance like synthetic fat, and as a result the synthetic fat properties have to be determined on the basis of the drop point as provided by GOST 6793-53. The table given in the article indicates the drop point of various samples of synthetic fat. Since the drop point method can be successfully used for determining synthetic fat characteristics, the GOST 4255-48 provision should be revised. It has been established that the synthetic fat drop point is the temperature not below 33° C. There are 2 figures and 1 table.

ASSOCIATION: Osipenkovskiy neftemaslozavod (The Osipenkovskiy Lubricating Oil Plant)

Card 2/2

STROM, D.A., kand.tekhn.nauk; ISHCHUK, Yu.L., inzh.; STROM, L.D., inzh.

Production of synthetic fat. Masl.-zhir. prom. 27 no.11:34-37
N '61. (MIRA 15:1)

1. Berdyanskiy neftemaslozavod (for D.A. Strom, Ishchuk).
2. Moskovskiy neftepererabatyvayushchiy zavod (for L.D. Strom).
(Oils and fats)

STROM, L.D.

Biochemical purification of industrial waste waters containing
fatty acids. Trudy BONMZ no.1:61-67 '63. (MIRA 16:6)

(Berdiansk--Water--Biological treatment)
(Acids, Fatty)

STROM, D.A.; ISHCHUK, Yu.L.; STROM, L.D.; KOFTUN, T.I.

Improving the technology of the manufacture of synthetic
leather fat. Trudy BONMZ no.1:38-50 '63. (MIRA 16:6)

(Oils and fats)

83649

S/092/60/000/001/001/002
A051/A026

26.2123
AUTHOR::

Strom, S.D., Head of the Electrical Shop

TITLE:

Instrument for Controlling the Lubrication of Bearings

PERIODICAL:

Neftyanik, 1960, No. 1, p. 23

TEXT:

An instrument has been designed (Fig. 1) at the Moscow Oil Refinery, which makes it possible to check the lubrication of bearings while pumps and electric motors are in operation. Figure 2 is the circuit diagram of the instrument, containing the following parts: 1) microammeter type No. 592, with a measuring range of $0 \pm 50 \mu\text{amp}$; 2) resistance 1,000 ohm; 3) galvanic cell - 1.5 v. The hold pick ups $\frac{1}{4}$ consist of a copper needle with an insulated handle. The instrument is of small weight and is convenient to handle. When using the instrument one must join one needle to the body of the pump or electric motor, and the other to a rotating axle. When the bearing has normal lubrication the oil film between the friction surfaces does not conduct the electric current and the dial of the instrument is at zero or close to it. Upon insufficient oil in the bearing, the oil film tears on the surface of the friction parts and the current passes freely through the bearing, and the dial of the instrument deviates. This set-up enables

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88649

Instrument for Controlling the Lubrication of Bearings S/092/60/000/001/001/002
A051/A026

one to detect poor lubrication in the bearing in good time during daily routine checks of the equipment. There are 2 figures.

ASSOCIATION: Moskovskiy NPZ (The Moscow Oil Refinery)

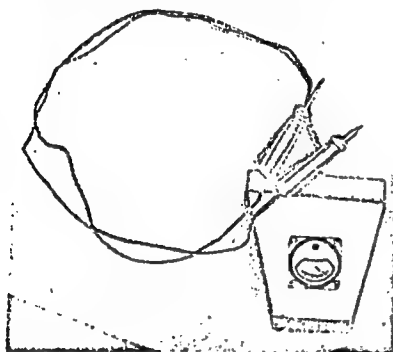


Figure 1: Full view of control instrument

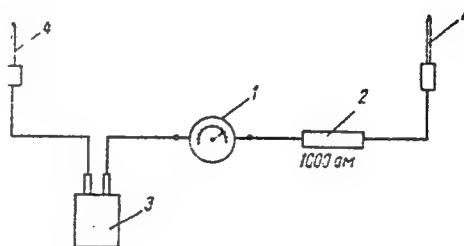


Figure 2: Wiring diagram

Card 2/2

STROM, S.D.

Painting shielded steel conduct in the winter. Neftianik
5 no.3:22 Mr '60. (MIRA 14:9)

1. Nachal'nik tsekha Moskovskogo neftepererabatyvayushchego
zavoda.
(Electric networks) (Steel--Corrosion)

STROM, S.D.

Remote ignition control of the emergency gas torch. Neftianik
5 no.6:24 Je '60. (MIRA 13:7)

1. Nachal'nik tsekha Moskovsko neftepererabatyvayushchego zavoda.
(Petroleum refineries--Equipment and supplies)

STROM, S.D.

Controller of the lubrication of bearings in electric motors
and oil pumps. Prom.energ. 16 no.9:36 S '61. (MIRA 14:8)
(Lubrication and lubricants)

BC

1-1

Relation between electrical conductivity and the coefficient of internal friction in molten salts.
 N. KARRATSKY and A. STRONINSKY (J. Phys. Chem. U.S.S.R., 1964, 6, 1298-1299).—A theoretical relationship between the conductivity, internal friction, mol. wt., and d is derived. Experimental vals. for the alkali and Ag halides and nitrates are 1.4–2.2 times too large. (U. Abs. (c))

AND SEA METALLURGICAL LITERATURE CLASSIFICATION

SECTION 111

SECTION 111

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[illegible]

BC

a-1

Viscosity coefficients in the system fused $KCl-MgCl_2$. B. KARPATSKHEV and A. SYROMONKIN (J. Gen. Chem. Russ., 1935, 5, 625-630).—The viscosity isotherms (550-600°) suggest the compound $MgCl_2 \cdot 2KCl$. R. T.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

(3)

INTERNAL FRICTION AND ELECTRICAL CONDUCTIVITY
IN THE $KCl-LiCl$ SYSTEM OF FUSED SALTS. S. V.

Karpachev, A. G. Stromberg, and V. N. Podchalnova.

Translated from Zhur. Obshchei Khim. 6, 1517-27(1935).
18p. (AEC-tr-1923)

In the interval of temperatures from 400 to 900°, the electrical conductivity and internal friction coefficient for the system of fused salts $KCl-LiCl$ was investigated. On the basis of the results obtained it is shown that direct application of Stokes law for describing the movement of separate ions within the fused salt is inadmissible. (auth)

17

2

THE ELECTROCAPILLARY PHENOMENA IN MOLTEN ELECTROLYTES
S. Karpachev and A. Stromberg, *J. Phys. Chem.* (U.S.S.R.) 10, 730-40 (1937); cf. C. A. 30, 7046. Measurements of the electrocapillary properties of 0-100% alloys of Sn with Zn in a eutectic mixt. of KCl and LiCl as electrolyte show that the max. surface tension varied from 511 dynes/sq. cm. at 0.3 v. on the capillary electrode for pure Sn to 501 dynes at 0.4 v. for 25 mol. % Zn, to 582 dynes at 0.5 v. for 75% and to 730 at 0.56 v. for 100% Zn. With 30% KI + 70% LiI as electrolyte the values are 423 dynes/sq. cm. for 0.37 v. and no Zn; 455 dynes for 0.40 v. and 25 mol. % Zn, 494 dynes for 0.5 v. and 75% and 600 dynes for 0.6 v. and 100% Zn. The data are explained in terms of Frumkin's theory of electrocapillary phenomena extended to molten electrolytes.
F. H. Rathmann

ASB 354 METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDER		PROCESS AND PROPERTIES INDEX		100 AND 1TH C-00181	
<p>The electroconductivity and the inner friction of fused salts. N. Karpachev and A. Abramberg. <i>J. Phys. Chem.</i> (U. S. S. R.) 11, 853-7(1958); <i>C. C. A. 32, 5580P</i>. The authors detd. at room temp. (10°) the coeff. of inner friction of water by the method developed by Dantuma (<i>C. A. 23, 557</i>) to verify their calcd. numerical data obtained for the consts. in the equation for inner friction of Verachaffelt (Verachaffelt and Nicaise, <i>Comm. Phys. Lab. Univ. Leiden</i> 1919, No. 153; <i>C. C. A. 10, 2311</i>)</p> $(2 + p)\eta + R\sqrt{(\sigma/T)\sqrt{d\eta}} = 36K/4\pi R^2 T_0, \quad p = (bR + 1)/(b^2 R^2 + (bR + 1)^2), \quad b = \sqrt{d\eta/T}$ <p>The value obtained, $\eta = 0.0110$, checks closely with the value 0.0111 given in chem. literature. The temp. dependence of the coeff. of inner friction was detd. for the fused salts: KBr, KI, NaI, LiBr, LiI, CuCl, CaCl₂, CdCl₂. All salts were repeatedly recrystd. before the expts. The temp. dependence of the d. of LiI was detd. It can be satisfactorily given by $d = 2.892 - 0.00057 T$. In all investigated cases the equation $\lambda\eta = \text{const.}$ was found to be true. 5 tables and 6 references are given.</p> <p style="text-align: right;">W. R. Henn</p>					
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>SECTION 1: 10000-19999</p>					
<p>SECTION 2: 20000-29999</p>					
<p>SECTION 3: 30000-39999</p>					
<p>SECTION 4: 40000-49999</p>					
<p>SECTION 5: 50000-59999</p>					
<p>SECTION 6: 60000-69999</p>					
<p>SECTION 7: 70000-79999</p>					
<p>SECTION 8: 80000-89999</p>					
<p>SECTION 9: 90000-99999</p>					

BC

Solutions of metallic cadmium in molten chlorides. S. KARPATSCHEV and A. STROMBERG (J. Phys. Chem. Russ., 1939, 13, 397-405).—The potential of a C electrode in a solution of Cd in a molten mixture of CdCl₂, KCl, and NaCl at 700° is given by $E = \text{const.} - 2.3(RT/2F) \log [Cd]$, indicating that the Cd is dissolved as single atoms. The solubility of Cd in mixtures of the above chlorides has been deduced from e.m.f. measurements, the results being confirmed by direct determination. R. C.

Ural Phys. Tech. Inst, Lab. Electrochem., Sverdlovsk

ASB 55A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>CA</p> <p>2</p> <p>Internal friction in molten salts as a function of concentration. A. G. Bronberg. <i>J. Phys. Chem.</i> (U. S. N. R.) 13, 430-48 (1909).—S. describes an app. more stable and simple than that of Harris (C. A. 28, 3042) and Hunter (C. A. 28, 4553) for detg. the rate of fall of a sphere in a volatile, colored, molten salt at high temps. From 270 to 450°, the coeff. of internal friction of 0.05 to 0.70 <i>N</i> solns. of AgI in HgI is a linear function of the concn. The slopes or ratios η/η_0 for a 0.7 <i>N</i> soln. with respect to pure HgI, are 1.01 at 278°; 1.50, 300°; 1.32, 350°; 1.22, 400°; 1.20, 425°. For KCl in SbCl₃ soln. at 100°, η is linear from 0.009 to 0.5 <i>N</i>; the ratio ($\eta_{0.5}/\eta_0$) is (0.0246/0.0171) = 1.44. Above 0.5 <i>N</i>, up to 1.91 <i>N</i>, η increases somewhat more rapidly. While the Falkenhagen electrostatic theory is applicable only up to KCl concns. of 1.6×10^{-3} <i>N</i> in SbCl₃ and 10^{-4} <i>N</i> in CH₃OH, the Einstein colloid soln. theory is applicable throughout most of the range of concns. studied. F. H. R.</p> <p>Lab Electrochem of Molten Salts, Ural Physico-Tech. Inst, Sverdlovsk</p> <p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									

COMMON ELEMENTS																										COMMON VALENTS INDEX																									
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26																										1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26																									
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26																										1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26																									
<p><i>Ca</i> <i>γ</i></p> <p>Investigations of electrocapillary phenomena for thallium amalgam in molten electrolytes. S. Karpachev and A. Stromberg. <i>J. Phys. Chem. (U. S. S. R.)</i> 13, 1831-6 (1939); <i>C. A.</i> 33, 6108. — Exptl. data on the electrocapillary potentials and the surface tensions of Tl-Hg amalgams contg. from 0 to 100% Tl and dissolved in molten KCl and LiCl are given in 3 tables and 2 figs. The manner in which the curves for various concns. lie with respect to one another is almost the same as for aq. solns. (cf. <i>Ibid.</i> 7, 784 (1936); <i>C. A.</i> 32, 8680). In the case of the concd. amalgams the potentials of the max. of the curves are practically independent of the concn., whereas the surface tensions vary as linear functions of concn. The potential values in the max. of the elec. capillary curve for metals dissolved in molten KCl-LiCl are: Hg, 0.1; Sn, 0.23; Pb, 0.47; Zn, 0.86; Tl, 0.66; and Cd, 0.63.</p> <p style="text-align: right;">R. H. Rathmann</p>																																																			
<p>ASM-A1A METALLURGICAL LITERATURE CLASSIFICATION</p> <p>1930-1939 1940-1949 1950-1959 1960-1969 1970-1979 1980-1989 1990-1999 2000-2009 2010-2019 2020-2029 2030-2039 2040-2049 2050-2059 2060-2069 2070-2079 2080-2089 2090-2099 2100-2109 2110-2119 2120-2129 2130-2139 2140-2149 2150-2159 2160-2169 2170-2179 2180-2189 2190-2199 2200-2209 2210-2219 2220-2229 2230-2239 2240-2249 2250-2259 2260-2269 2270-2279 2280-2289 2290-2299 2300-2309 2310-2319 2320-2329 2330-2339 2340-2349 2350-2359 2360-2369 2370-2379 2380-2389 2390-2399 2400-2409 2410-2419 2420-2429 2430-2439 2440-2449 2450-2459 2460-2469 2470-2479 2480-2489 2490-2499 2500-2509 2510-2519 2520-2529 2530-2539 2540-2549 2550-2559 2560-2569 2570-2579 2580-2589 2590-2599 2600-2609 2610-2619 2620-2629 2630-2639 2640-2649 2650-2659 2660-2669 2670-2679 2680-2689 2690-2699 2700-2709 2710-2719 2720-2729 2730-2739 2740-2749 2750-2759 2760-2769 2770-2779 2780-2789 2790-2799 2800-2809 2810-2819 2820-2829 2830-2839 2840-2849 2850-2859 2860-2869 2870-2879 2880-2889 2890-2899 2900-2909 2910-2919 2920-2929 2930-2939 2940-2949 2950-2959 2960-2969 2970-2979 2980-2989 2990-2999 3000-3009 3010-3019 3020-3029 3030-3039 3040-3049 3050-3059 3060-3069 3070-3079 3080-3089 3090-3099 3100-3109 3110-3119 3120-3129 3130-3139 3140-3149 3150-3159 3160-3169 3170-3179 3180-3189 3190-3199 3200-3209 3210-3219 3220-3229 3230-3239 3240-3249 3250-3259 3260-3269 3270-3279 3280-3289 3290-3299 3300-3309 3310-3319 3320-3329 3330-3339 3340-3349 3350-3359 3360-3369 3370-3379 3380-3389 3390-3399 3400-3409 3410-3419 3420-3429 3430-3439 3440-3449 3450-3459 3460-3469 3470-3479 3480-3489 3490-3499 3500-3509 3510-3519 3520-3529 3530-3539 3540-3549 3550-3559 3560-3569 3570-3579 3580-3589 3590-3599 3600-3609 3610-3619 3620-3629 3630-3639 3640-3649 3650-3659 3660-3669 3670-3679 3680-3689 3690-3699 3700-3709 3710-3719 3720-3729 3730-3739 3740-3749 3750-3759 3760-3769 3770-3779 3780-3789 3790-3799 3800-3809 3810-3819 3820-3829 3830-3839 3840-3849 3850-3859 3860-3869 3870-3879 3880-3889 3890-3899 3900-3909 3910-3919 3920-3929 3930-3939 3940-3949 3950-3959 3960-3969 3970-3979 3980-3989 3990-3999 4000-4009 4010-4019 4020-4029 4030-4039 4040-4049 4050-4059 4060-4069 4070-4079 4080-4089 4090-4099 4100-4109 4110-4119 4120-4129 4130-4139 4140-4149 4150-4159 4160-4169 4170-4179 4180-4189 4190-4199 4200-4209 4210-4219 4220-4229 4230-4239 4240-4249 4250-4259 4260-4269 4270-4279 4280-4289 4290-4299 4300-4309 4310-4319 4320-4329 4330-4339 4340-4349 4350-4359 4360-4369 4370-4379 4380-4389 4390-4399 4400-4409 4410-4419 4420-4429 4430-4439 4440-4449 4450-4459 4460-4469 4470-4479 4480-4489 4490-4499 4500-4509 4510-4519 4520-4529 4530-4539 4540-4549 4550-4559 4560-4569 4570-4579 4580-4589 4590-4599 4600-4609 4610-4619 4620-4629 4630-4639 4640-4649 4650-4659 4660-4669 4670-4679 4680-4689 4690-4699 4700-4709 4710-4719 4720-4729 4730-4739 4740-4749 4750-4759 4760-4769 4770-4779 4780-4789 4790-4799 4800-4809 4810-4819 4820-4829 4830-4839 4840-4849 4850-4859 4860-4869 4870-4879 4880-4889 4890-4899 4900-4909 4910-4919 4920-4929 4930-4939 4940-4949 4950-4959 4960-4969 4970-4979 4980-4989 4990-4999 5000-5009 5010-5019 5020-5029 5030-5039 5040-5049 5050-5059 5060-5069 5070-5079 5080-5089 5090-5099 5100-5109 5110-5119 5120-5129 5130-5139 5140-5149 5150-5159 5160-5169 5170-5179 5180-5189 5190-5199 5200-5209 5210-5219 5220-5229 5230-5239 5240-5249 5250-5259 5260-5269 5270-5279 5280-5289 5290-5299 5300-5309 5310-5319 5320-5329 5330-5339 5340-5349 5350-5359 5360-5369 5370-5379 5380-5389 5390-5399 5400-5409 5410-5419 5420-5429 5430-5439 5440-5449 5450-5459 5460-5469 5470-5479 5480-5489 5490-5499 5500-5509 5510-5519 5520-5529 5530-5539 5540-5549 5550-5559 5560-5569 5570-5579 5580-5589 5590-5599 5600-5609 5610-5619 5620-5629 5630-5639 5640-5649 5650-5659 5660-5669 5670-5679 5680-5689 5690-5699 5700-5709 5710-5719 5720-5729 5730-5739 5740-5749 5750-5759 5760-5769 5770-5779 5780-5789 5790-5799 5800-5809 5810-5819 5820-5829 5830-5839 5840-5849 5850-5859 5860-5869 5870-5879 5880-5889 5890-5899 5900-5909 5910-5919 5920-5929 5930-5939 5940-5949 5950-5959 5960-5969 5970-5979 5980-5989 5990-5999 6000-6009 6010-6019 6020-6029 6030-6039 6040-6049 6050-6059 6060-6069 6070-6079 6080-6089 6090-6099 6100-6109 6110-6119 6120-6129 6130-6139 6140-6149 6150-6159 6160-6169 6170-6179 6180-6189 6190-6199 6200-6209 6210-6219 6220-6229 6230-6239 6240-6249 6250-6259 6260-6269 6270-6279 6280-6289 6290-6299 6300-6309 6310-6319 6320-6329 6330-6339 6340-6349 6350-6359 6360-6369 6370-6379 6380-6389 6390-6399 6400-6409 6410-6419 6420-6429 6430-6439 6440-6449 6450-6459 6460-6469 6470-6479 6480-6489 6490-6499 6500-6509 6510-6519 6520-6529 6530-6539 6540-6549 6550-6559 6560-6569 6570-6579 6580-6589 6590-6599 6600-6609 6610-6619 6620-6629 6630-6639 6640-6649 6650-6659 6660-6669 6670-6679 6680-6689 6690-6699 6700-6709 6710-6719 6720-6729 6730-6739 6740-6749 6750-6759 6760-6769 6770-6779 6780-6789 6790-6799 6800-6809 6810-6819 6820-6829 6830-6839 6840-6849 6850-6859 6860-6869 6870-6879 6880-6889 6890-6899 6900-6909 6910-6919 6920-6929 6930-6939 6940-6949 6950-6959 6960-6969 6970-6979 6980-6989 6990-6999 7000-7009 7010-7019 7020-7029 7030-7039 7040-7049 7050-7059 7060-7069 7070-7079 7080-7089 7090-7099 7100-7109 7110-7119 7120-7129 7130-7139 7140-7149 7150-7159 7160-7169 7170-7179 7180-7189 7190-7199 7200-7209 7210-7219 7220-7229 7230-7239 7240-7249 7250-7259 7260-7269 7270-7279 7280-7289 7290-7299 7300-7309 7310-7319 7320-7329 7330-7339 7340-7349 7350-7359 7360-7369 7370-7379 7380-7389 7390-7399 7400-7409 7410-7419 7420-7429 7430-7439 7440-7449 7450-7459 7460-7469 7470-7479 7480-7489 7490-7499 7500-7509 7510-7519 7520-7529 7530-7539 7540-7549 7550-7559 7560-7569 7570-7579 7580-7589 7590-7599 7600-7609 7610-7619 7620-7629 7630-7639 7640-7649 7650-7659 7660-7669 7670-7679 7680-7689 7690-7699 7700-7709 7710-7719 7720-7729 7730-7739 7740-7749 7750-7759 7760-7769 7770-7779 7780-7789 7790-7799 7800-7809 7810-7819 7820-7829 7830-7839 7840-7849 7850-7859 7860-7869 7870-7879 7880-7889 7890-7899 7900-7909 7910-7919 7920-7929 7930-7939 7940-7949 7950-7959 7960-7969 7970-7979 7980-7989 7990-7999 8000-8009 8010-8019 8020-8029 8030-8039 8040-8049 8050-8059 8060-8069 8070-8079 8080-8089 8090-8099 8100-8109 8110-8119 8120-8129 8130-8139 8140-8149 8150-8159 8160-8169 8170-8179 8180-8189 8190-8199 8200-8209 8210-8219 8220-8229 8230-8239 8240-8249 8250-8259 8260-8269 8270-8279 8280-8289 8290-8299 8300-8309 8310-8319 8320-8329 8330-8339 8340-8349 8350-8359 8360-8369 8370-8379 8380-8389 8390-8399 8400-8409 8410-8419 8420-8429 8430-8439 8440-8449 8450-8459 8460-8469 8470-8479 8480-8489 8490-8499 8500-8509 8510-8519 8520-8529 8530-8539 8540-8549 8550-8559 8560-8569 8570-8579 8580-8589 8590-8599 8600-8609 8610-8619 8620-8629 8630-8639 8640-8649 8650-8659 8660-8669 8670-8679 8680-8689 8690-8699 8700-8709 8710-8719 8720-8729 8730-8739 8740-8749 8750-8759 8760-8769 8770-8779 8780-8789 8790-8799 8800-8809 8810-8819 8820-8829 8830-8839 8840-8849 8850-8859 8860-8869 8870-8879 8880-8889 8890-8899 8900-8909 8910-8919 8920-8929 8930-8939 8940-8949 8950-8959 8960-8969 8970-8979 8980-8989 8990-8999 9000-9009 9010-9019 9020-9029 9030-9039 9040-9049 9050-9059 9060-9069 9070-9079 9080-9089 9090-9099 9100-9109 9110-9119 9120-9129 9130-9139 9140-9149 9150-9159 9160-9169 9170-9179 9180-9189 9190-9199 9200-9209 9210-9219 9220-9229 9230-9239 9240-9249 9250-9259 9260-9269 9270-9279 9280-9289 9290-9299 9300-9309 9310-9319 9320-9329 9330-9339 9340-9349 9350-9359 9360-9369 9370-9379 9380-9389 9390-9399 9400-9409 9410-9419 9420-9429 9430-9439 9440-9449 9450-9459 9460-9469 9470-9479 9480-9489 9490-9499 9500-9509 9510-9519 9520-9529 9530-9539 9540-9549 9550-9559 9560-9569 9570-9579 9580-9589 9590-9599 9600-9609 9610-9619 9620-9629 9630-9639 9640-9649 9650-9659 9660-9669 9670-9679 9680-9689 9690-9699 9700-9709 9710-9719 9720-9729 9730-9739 9740-9749 9750-9759 9760-9769 9770-9779 9780-9789 9790-9799 9800-9809 9810-9819 9820-9829 9830-9839 9840-9849 9850-9859 9860-9869 9870-9879 9880-9889 9890-9899 9900-9909 9910-9919 9920-9929 9930-9939 9940-9949 9950-9959 9960-9969 9970-9979 9980-9989 9990-9999</p>																																																			

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***Electrocapillary Curves of [Tin-Zinc and Mercury-Thallium] Alloys in Fused Salts.** S. Karpatschoff and A. Stromberg (*Acta Physicochim. U.R.S.S.*, 1940, 12, 4), 523-530).—[In English.] Electrocapillary curves for series of tin-zinc and mercury-thallium alloys in fused electrolytes were determined. In the tin-zinc alloys, the curve showing interfacial tension as a function of composition has a minimum. The curves for mercury-thallium alloys are very similar to those obtained in aqueous solutions by Frankin and Gornitskaya (*Z. physikal. Chem.*, 1928, 126, 451). The significance of this result in the theory of electrocapillarity is discussed.—N. B. V.

1ST AND 2ND CIPHERS																										3RD AND 4TH CIPHERS																									
PROCESSES AND PROPERTIES INDEX																										1																									
<p>Investigation of Electrocapillary Phenomena on Various Liquid Metals. S. Karpatschoff and A. Stromberg (Acta Physicochim., U.S.S.R. 1942, 16, (5/6), 331-335; C. Abs., 1943, 37, 3322).—Cf. K. and S., 4 ibid., 1940, 12, 523; Met. Abs., 1941, 8, 342. Electrocapillary curves for silver, antimony, bismuth, aluminium, gallium, and tellurium were obtained, using fused mixtures of KCl + LiCl of eutectic composition as the electrolyte. A table is given for the potentials of the maxima of the electrocapillary curves against the lead electrode for the metals studied. In a number of cases the p.d.s at the maxima of the electrocapillary curves for different metals coincide with the p.d. between these metals at their points of zero change in aqueous solutions. Such agreement is not found for silver.</p>																																																			
ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																			
E-2																																																			

37. 460

H.E. = relations, separations, and
myself

Solutions of lead in its fused chloride. S. Karpat-shev, A. Stromberg, and E. Jordan (*Compt. rend. Acad. Sci. U. S. S. R.*, 1942, **36**, 101-104).—From measurements of the potentials of a C. electrode in a solution of Pb in fused $PbCl_2$ at 700°C the function of the concn. of the metal, it is concluded that the Pb goes into solution as a univalent positive ion. The solubility of Pb in $PbCl_2$ at 700°C is 0.0417%. H. J. W.

5. 26. A. Stromberg

Contact potential difference between mercury and thallium amalgam. S. Karpatshev and A. Stromberg (*J. Phys. Chem. Russ.*, 1943, 17, 1—3).—The characteristics of two two-electrode thermionic valves are compared, the anode of one being a thin stream of Hg, and of the other a similar stream of 12% Tl amalgam. The voltage difference between the characteristics is 0.35—0.42 v. This agrees with the difference between the potentials of the electrocapillary max. of Hg and of Tl amalgam (cf. A., 1941, I, 81).
J. J. B.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

TEST AND ANALYSIS PROCESSES AND PROPERTIES

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STUDIES ON THE ELECTROCAPILLARY PHENOMENA OF VARIOUS LIQUID METALS
S. Karpachev and A. Stromberg (Zhur. Fiz. Khim., 1944, 18, (12), 47-52).
[In Russian.] See Met. Abs., 1944, 11, 3.—N. B. V.

ASB 31A METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CA

7

Polarographic determination of cobalt in the presence of nickel. Catalytic evolution of hydrogen in the presence of cobalt complexes with dimethylglyoxime. A. G. Stravinskii and A. I. Zelyanskaya (Chem. Inst. Acad. Sci. USSR), *J. Gen. Chem. (U.S.S.R.)* 15, 3031 (1943) (English summary). A new method for polarographic detn. of Co was developed based on the formation of the insol. complex of the interfering Ni with dimethylglyoxime, while the corresponding Co complex remains in soln. The increased wave height in the presence of dimethylglyoxime is probably due to the catalytic evolution of H₂. It was shown that rapid sepn. of Fe without copper of Co is possible by the use of (NH₄)₂CO₃, while Cu can be removed by sepn. on an Fe plate. G. M. Kozolapoff

A14 31A METALLURGICAL LITERATURE CLASSIFICATION